

Work Order ID 154525

154525

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Thursday, December 15, 2016 8:00:48 AM

Item ID: D3049-1 **Accept** ***N900040100*** **Setup** **Start** ***NS1***
Revision ID: **Stop** ***NS2***
Item Name: Bearpaw
Start Date: 12/12/2016 **Start Qty:** 4.00 ***4*** **Cust Item ID:**
Required Date: 12/28/2016 **Req'd Qty:** 4.00 ***4*** **Customer:**
Reference:

Approvals: **Process Plan:** **DAS 21 9-89** **Date:** **DEC 15 2016** **Tooling:** **Date:** **Run** **Start** ***NR1***
QC: **Date:** **SPC (Y/N):** **Date:** **Stop** ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3049	Rev B								

110 0.00
110
 Waterjet **Memo** 0.33
 FLOW CNC Waterjet CUT BLANK AS PER FILE D3049-1_BLANK

120 0.00
120
 HAAS 1 **Memo** 0.51
 HAAS CNC vertical machine #1 1-Inspect material for defects or damage prior to machining
 2-Machine as per Folio FA165 and Dwg D3049Identify as D3049-1
 3-Debur

130 0.00
130
 QC **Memo** 0.01
 Quality Control

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

154525

Thursday, December 15, 2016 8:00:48 AM

N900040100

Setup Start *NS1*

Stop *NS2*

4

Cust Item ID:

Start Date: 12/12/2016 **Start Qty:** 4.00

Required Date: 12/28/2016 **Req'd Qty:** 4.00

4

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

Picklist Print

Thursday, December 15, 2016 8:00:48 AM

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Work Order ID: 154525

154525

Parent Item: D3049-1

D3049-1

Parent Item Name: Bearpaw

Start Date: 12/12/2016

Required Date: 12/28/2016

Start Qty: 4.00

Required Qty: 4.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MUHMWB10		Purchased	No			120	sf	674.0000	3.4	13.6			

MUHMWB10

on 12/12/19

UHMW 1" Black - 48"x120" Tivar Mfg.#52480104

Location

Loc Qty

Loc Code

MAT018

674

m135013

14

m135913

260

m136290

400

15.6

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No. _____		Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐			
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process								
Misidentified ☐	☐ Past Due	OTHER :							

DART AEROSPACE LTD		Work Order:	154525
Description: Bearpaw		Part Number:	D3049-1
Inspection Dwg: D3049	Rev: B	Page 1 of 1	

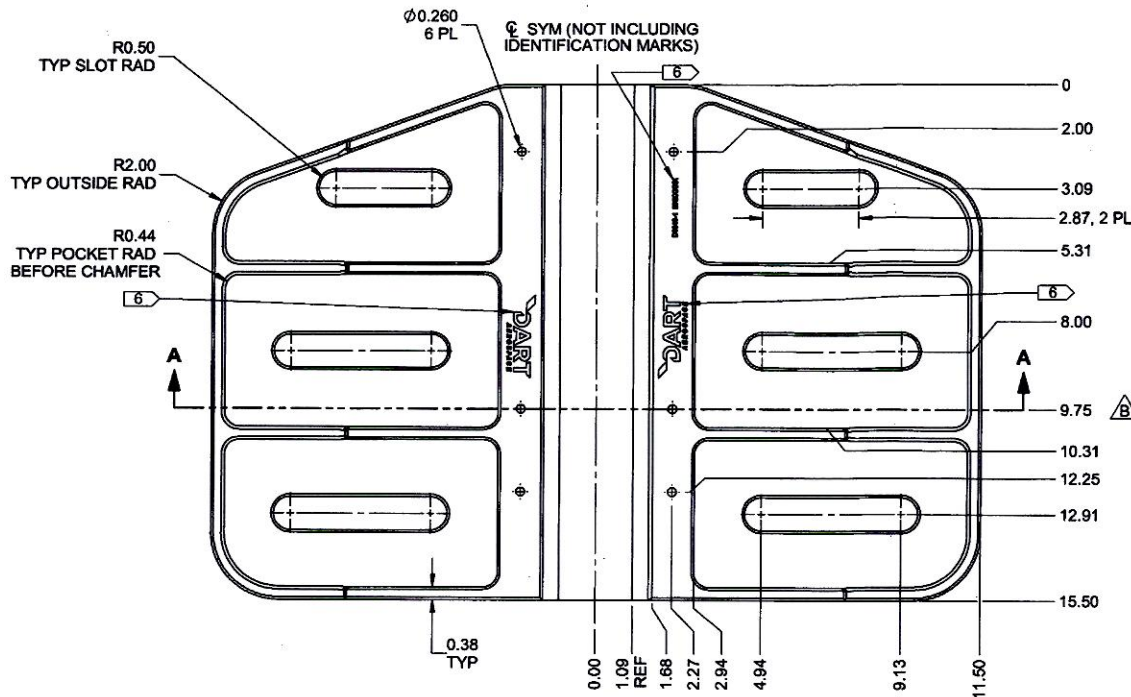
INSPECTION SHEET

Inspection Sheet Drawing Dimension		Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A	Ø0.260	+0.005/-0.000	0.260	/		vern	mm L-05
B	0.93	+/-0.030	0.929	/			
C	0.40	+0.030/-0.000	0.420	/		↓	
D	2.00	+/-0.030	2.002	/		↓	
E	10.31	+/-0.010	10.310	/		tape	
F	2.87	+/-0.030	2.884	/		vern	mm L-05
G	8.00	+/-0.030	8.000	/		tape	
H	0.38	+/-0.030	0.376	/		vern	mm L-05
I	11.50	+/-0.030	11.50	/		↓	
J	0.07 x 45°	+0.030/-0.010	0.065 x 45°	/		↓	
K	0.44 - 0.47	+/-0.000	0.456	/		↓	
L	R0.25	+/-0.030	0.250	/		RG	
M							
N	0.95	+0.030/-0.010	0.947	/		vern	mm L-05
O	0.69	+/-0.030	0.694	/		↓	
P	0.20	+/-0.030	0.199	/		↓	
Q	R0.25	+/-0.030	.250	/		RG	
R	0.25 x 45°	+/-0.030	0.260 x 45°	/		vern	mm L-05
S							
T							
U							
V							
W							
X							
Y							
Z							
AA							
AB							

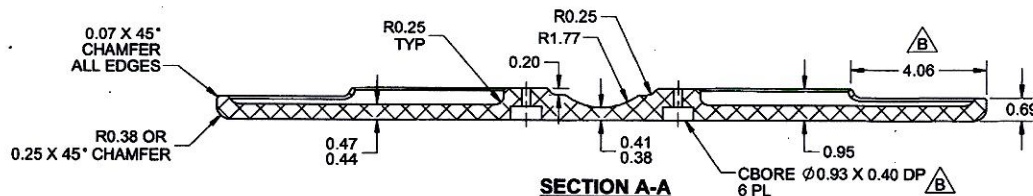
Measured by:	3-89	Checked by:	9-89	QC Inspector:	
Date:	17/01/11	Date:	17-01-12	Date:	

Engineering Approval: (If necessary)	Date:
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Rev	Date	Change	Revised by	Approved
A	03.09.22	New Issue	KJ/RF	
B	08.05.06	Dimension I revised	KJ/DD	
C	16.10.20	Dwg Rev updated	KJ	



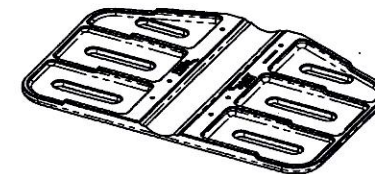
D3049-1 BEARPAW



SECTION A-A

NOTES:

- 1) MATERIAL: UHMW BLACK TIVAR 1000 VIRGIN MATERIAL, 1.00 THICK MACHINED TO 0.95 (REF DART SPEC. MUHMWB10)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE DART LOGO, PART NUMBER "D3049-1" AND BATCH NUMBER "BXXXXX" IN ACCORDANCE WITH QSI 044 METHOD 6.3 TO MAX DEPTH OF 0.012 AS ILLUSTRATED
- 7) WEIGHT: 5.94 lbs
- 8) NON DIMENSIONED FEATURES PER CAD FILE "D3049-1-REV.B.STP"



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 154525 MJS
1612-15

RELEASED
2016-07-26
ECN 16-591

APPROVED

B	REVISE DWG TO CURRENT STANDARDS, ADDED 2 ADDITIONAL CBORE HOLES ZIN C6-1, UPDATE DIM'S DUE TO CAD ERROR; Ø0.93 WAS Ø0.75	ML	16.06.01
A	NEW ISSUE	RF	01.10.18
REV.	DESCRIPTION	BY	DATE
DESIGN	ML	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	ML		
CHECKED	DB	DRAWING NO.	REV. B
MFG. APPR.	JLM	D3049	SHEET 1 OF 1
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	BEARPAW	NTS
DATE	16.06.01	COPYRIGHT © 2001 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	